Transportation RFI, Interim Charge 3
Union Pacific Railroad Submission

Ivan Jaime
Union Pacific Railroad
1711 Quintana Road
San Antonio, TX 78211
(210) 200-3656

Corporate Information

Union Pacific (UP) is America's and Texas' premier railroad franchise. One of the country's most recognized companies, Union Pacific Railroad connects 23 states in the western two-thirds of the country by rail, providing a critical link in the global supply chain. In the last 10 years, Union Pacific invested approximately $35 billion in its network and operations to support the nation's transportation infrastructure.

The company's diversified business mix includes its Bulk, Industrial and Premium business groups. Union Pacific serves many of the fastest-growing U.S. population centers, operates from all major West Coast and Gulf Coast ports, connects with Canada's rail systems and is the only railroad serving all six major Mexico gateways. Union Pacific provides value to its roughly 10,000 customers by delivering products in a safe, reliable, and environmentally responsible manner.

In Texas

Union Pacific owns and operates more than 6,300 miles of track in Texas, which accounts for more than half of the track mileage in the state. Additionally, UP employs 6,600 Texans, and helps support up to an additional

59,000 jobs according to a recent study by Towson University's Regional Economic Studies Institute. Union Pacific is the only railroad company serving all twelve Texas Gulf Coast ports and the state's four active international ports of entry.

In 2019 alone, Union Pacific's payroll, purchases, and capital investments in Texas totaled $3.2 billion – demonstrating the company's commitment to its customers and the communities it serves in the state.

Charge 3 – Autonomous Vehicles

As a company that has served the country for more than 150 years, Union Pacific recognizes the critical role that technology plays in the transportation industry. The development of new technologies, including autonomous vehicles, offers the unique opportunity to dramatically improve the safety of our nation's roads. Further, autonomous vehicles have the potential to substantially enhance grade crossing safety by reducing or eliminating human error by motor vehicle drivers.

In order for autonomous vehicles to unlock their accident-reduction and life-saving potential, Union Pacific urges that the committee ensure they are capable of the following:

1. Autonomous vehicles should be able to recognize when they are approaching highway-rail crossings by identifying the various signs and pavement markings associated with those grade crossings. There should be sufficient technological redundancies in place in order to ensure that autonomous vehicles retain the capability to make these determinations in various types and degrees of weather conditions, as well as if signage were down or misplaced or if road conditions were seriously deteriorated.

2. Autonomous vehicles should be able to detect approaching trains, including identifying locomotive headlights, horns, or bells and account for any variables that might obstruct their view.
3. Autonomous vehicles should not begin crossing tracks unless they will be able to fully move through them. Stopping on tracks because of traffic queuing or other causes creates a dangerous situation that can be prevented with highly automated vehicle technology.
4. It is important for designers of autonomous vehicles to understand that Positive Train Control (PTC) is not being deployed across the entire rail network, and does not have the capability to communicate train location or speed information to highway vehicles in any event.
5. Promote consistent automated technology policies across transportation modes, to include the implementation of technology to improve efficiency.